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10/624,847	07/22/2003	Ioana M. RizoIU	BI9322CON	6537

7590 04/19/2006  
Stout, Uxa, Buyan & Mullins, LLP  
Suite 300  
4 Venture  
Irvine, CA 92618

EXAMINER

LEWIS, RALPH A

ART UNIT PAPER NUMBER

3732

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,847

Applicant(s)

RIZOIU ET AL.

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 29-137 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 88-113 is/are allowed.
- 6) ☒ Claim(s) 29-37, 40-48, 59, 61-77, 79-87, 114-127 and 129-135 is/are rejected.
- 7) ☒ Claim(s) 38, 39, 49-58, 60, 78, 128, 136 and 137 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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### **Claim objections**

In claims 29-65 and 67-69, 71 and 73-87, the claim status identifier "Previously Added" is not provided for by 37 CFR 1.121.

### **Rejections based on Prior Art**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 29-31, 35-37, 63, 65-68, 71 and 116-118 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori (US 4,852,549).

In Figures 6a-6c note the dental device for exposing teeth to electromagnetic radiation comprised of a dental band 10D having a substantially planar configuration and a substantially planar surface (at least at the ends thereof see Figure 6a) that is constructed to be applied to at least one tooth and a light emitting device attached to the dental band 10D by optic fibers 12. In regard to claim 29, the artificial light rays of

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column 2, line 45 is deemed to inherently require a light source and a power source for powering the light source.

Claims 116-118, 122-125 and 130-134 are rejected under 35 U.S.C. 102(e) as being anticipated by Jensen et al (US 6,391,283).

Jensen discloses a dental band/strip 40 that is applied and temporarily attached to a patient's tooth and electromagnetic energy emitting elements 44. In regard to claim 34 and 61, note the "heat lamp" disclosure of Jensen et al (column 19, line 42). In regard to claim

It is noted that applicant's specification only briefly refers to the terms "dental band" and "dental tape" in passing (e.g. column 7, line 51 of the parent 6,616,447) without providing for any real definition of the terms. The examiner interprets the terms as requiring a thin elongated structure. The "tape" terminology is further interpreted as having an inherent flexibility requirement which is not necessarily present in the term "band."

Claims 1 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Oxman et al (US 5,718,577).

Note the inner wall 14b which has a portion which substantially planar with a substantially planar surface.

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Claims 1, 29-31, 33-37, 61, 63-68, 70, 71, 114-118, 120 and 121 are rejected under 35 U.S.C. 102(e) as being anticipated by Alden (US 6,743,249).

Alden discloses a flexible band having a substantially planar configuration with planar surface and having electromagnetic energy emitting elements 28. The flexible band can be shaped for attachment to a patient's teeth (note Figure 11). In regard to claim 30, note column 6, lines 2—10. Note in regard to claim 34, that the LED elements of Alden inherently emit heat. In regard to claim 64, a gold layer 50 (column 7, line 46) is provided which would inherently reflect light.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32, 40-48, 72-77, 79-87, 122-127 and 135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alden (US 6,743,249) in view of Kipke et al (US 5,487,662).

In regard to the "woven" limitation of claim 32 Alden discloses different arrangements of fibers in figures 1 and 2, but fails to disclose the claimed woven configuration. Kipke et al, however, teaches that by weaving the fibers in Figure 7 that more uniform light dispersion may be provided. To have woven the fibers in Alden in

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order to better disperse the light as taught by Kipke et al would have been obvious to one of ordinary skill in the art.

In regard to the dentifrice limitations of claims 40-48, Kipke et al teaches the use of such to treat the patient's mouth. To have used dentifrice with the Figure 11 Alden device in order to treat the patent as taught by Kipke et al would have been obvious to one of ordinary skill in the art.

In regard to claim 126, Alden discloses preapplying compositions to the surface of the band in order to enhance the ability of the band to stick to the patient see column 5, lines 46-65, but fails to explicitly disclose the claimed protective liner for keeping the sticky layer from adhering to things before it is applied to the patient. It is noted, however, that every child knows that sticky layers are protected on Band-Aids prior to use with protective sheets. To have provided such a notoriously well known protective sheet to the the alden band would have been obvious to one of ordinary skill in the art.

Claims 62, 69, and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alden (US 6,743,249).

In regard to the circuit for varying the electromagnetic radiation limitation it is noted that Alden discloses a power source 30, but fails to explicitly state that it can be used to vary the intensity or duration of the power. To have merely provided the source 30 with such controls so that one could adjust the Alden device for different conventional needs would have been obvious to the ordinarily skilled artisan.

### **Action Made Final**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### **Allowable Subject Matter**

Claims 38, 39, 49-58, 60, 78, 128, 136 and 138 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the claims from which they depend.


Claims 88-113 are allowed.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis  
April 17, 2006

  
Ralph A. Lewis  
Primary Examiner  
Au 3732